

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A pattern inspection apparatus comprising:

imaging optics which forms an optical image of a pattern formed on a plate to be inspected based on designed pattern data;

a detected pattern data generator which detects the optical image to generate detected pattern data;

a reference pattern data generator which generates first reference pattern data ~~regarding the detected pattern data~~ from the designed pattern data, the first reference pattern data being a reference data corresponding to the detected pattern data;

a first comparator which compares the detected pattern data with the first reference pattern data to detect a defect of the pattern formed on the plate;

a first memory which, when there are a plurality of repeated pattern areas on the plate, stores pattern data obtained by detecting an inspection area, which is one of the plurality of repeated pattern areas, as second reference pattern data;

a second comparator which compares the detected pattern data with the second reference pattern data to detect the defect of the pattern formed on the plate; and

a computer which reads an arrangement, a number, a dimension and a repeated pitch of the plurality of repeated pattern areas from the designed pattern data, and stores the inspection area as a basis of the second reference pattern data.

Claim 2 (Original): The pattern inspection apparatus according to claim 1, wherein the computer detects presence of the plurality of repeated pattern areas from layout information contained in the designed pattern data, and reads the arrangement, the number, the dimension and the repeated pitch of the plurality of the repeated pattern areas.

Claim 3 (Original): The pattern inspection apparatus according to claim 1, wherein the computer defines a fixed pattern range as a cell from description of the designed pattern data, detects start positions and finish positions of a plurality of repeated cells from repeated description of the cell, and reads an arrangement, a number, a dimension and a repeated pitch of the plurality of repeated cells.

Claim 4 (Original): The pattern inspection apparatus according to claim 1, wherein the computer saves the designed pattern data as an image, extracts a repeated feature by pattern matching to detect presence of a plurality of repeated subchips in one chip, and reads an arrangement, a number, a dimension and a repeated pitch of the plurality of repeated subchips.

Claim 5 (Original): The pattern inspection apparatus according to claim 1, wherein comparison is carried out for the same detected pattern area by using both of the first and second comparators.

Claim 6 (Currently Amended): The pattern inspection apparatus according to claim 1,
wherein detected pattern data of a first detected area generated by the detected pattern data generator is sent to the first comparator and the first memory[[,]];
the first comparator compares the detected pattern data of the first detected area with reference pattern data of the first detected area generated by the reference pattern data generator ~~regarding the detected pattern data~~[[,]];

detected pattern data of a second detected area generated by the detected pattern data generator ~~after the detected pattern data of the first detected area~~ is sent to the first and second comparators, after detecting the pattern data of the first detected area;

the first comparator compares the detected pattern data of the second detected area with reference pattern data of the second detected area generated by the reference pattern data generator ~~regarding the detected pattern data~~[[,]]; and

the second comparator compares the detected pattern data of the second detected area with the detected pattern data of the first detected area stored in the first memory.

Claim 7 (Currently Amended): The pattern inspection apparatus according to claim 6,

wherein detected pattern data of a third detected area generated by the detected pattern data generator after the detected pattern data of the second detected area is sent to the first and second comparators[[,]]; and

the first comparator compares the detected pattern data of the third detected area with reference pattern data of the third detected area generated by the reference pattern data generator ~~regarding the detected pattern data~~[[,]]; and

the second comparator compares the detected pattern data of the third detected area with the detected pattern data of the first detected area stored in the first memory.

Claim 8 (Currently Amended): The pattern inspection apparatus according to claim 1, wherein the reference pattern data generator has a second memory[[,]]; and

the detected pattern data of the first and second detected areas generated by the detected pattern data generator are sent to the first and second memories[[,]]; and

the first comparator compares the detected pattern data of the first and second detected areas with the reference pattern data of the first and second detected areas generated by the reference pattern data generator[[],]; and

the second comparator compares the detected pattern data of the first and second detected areas stored in the first memory with each other.

Claims 9-15 (Cancelled).

Claim 16 (New): The pattern inspection apparatus according to claim 4, wherein the computer saves the designed pattern data as the image by generating bit pattern data on a pattern memory based on the designed pattern data.

IN THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Figs. 2 and 3, replaces the original sheet including Figs. 2 and 3.

Attachment: Replacement Sheet